THE MARINE RECORD.

DEVOTED TO COMMERCE, ENGINEERING AND SCIENCE.

ESTABLISHED 1878.

VOL. XV. CLEVELAND, OHIO, JUNE 2, 1892. NO. 23

LAKE CARRIERS' ASSOCIATION.

To consider and take action upon all general questions relating to the navigation and carrying business of the Great Lakes, maintain necessary shipping offices and in general to protect the common interest of Lake Carriers, and improve the character of the service rendered to the public.

President: M. A. BRADLEY, - - Cleveland.

Vice-Presidents:

JOHN G. KEITH, -	Chicago.	JAMES W. MILLEN, -	Detroit.
W. S. BRAINARD, -	Toledo.	F. J. FIRTH, - -	Erie.
R. P. FITZGERALD, -	Milwaukee.	THOMAS WILSON, -	Cleveland.
ALEXANDER MCDOUGALL,	Duluth.	P. P. MILLER, - -	Buffalo.

Secretary: CHARLES H. KEEP, - Buffalo.
Treasurer: GEO. P. MCKAY, - - Cleveland.
Counsel: HARVEY D. GOULDER, - Cleveland.

Board of Managers.

F. W. Baldwin, -	Ogdensburg.	Thomas Wilson, -	Cleveland.
F. J. Firth, - -	Erie.	H. M. Bradley, - -	Cleveland.
W. E. Chapman, -	Sandusky.	Jas. Corrigan, -	Cleveland.
C. T. Morley, -	Marine City.	H. M. Hanna, - -	Cleveland.
Alvin Neal, - -	Port Huron.	G. P. McKay, -	Cleveland.
James Davidson, -	Bay City.	H. G. Dalton, - -	Cleveland.
Charles A. Eddy, -	Bay City.	Harvey H. Brown, -	Cleveland.
Alexander McDougal, -	Duluth.	J. W. Moore, - -	Cleveland.
F. W. Gilchrist, -	Alpena.	B. L. Pennington, -	Cleveland.
J. C. Gilchrist, -	Vermillion.	Henry A. Hawgood, -	Cleveland.
J. L. Higgie, - -	Chicago.	W. C. Richardson, -	Cleveland.
Jesse Spaulding, -	Chicago.	S. D. Caldwell, - -	Buffalo.
J. S. Dunham, - -	Chicago.	Peter P. Miller, -	Buffalo.
John Keith, - -	Chicago.	E. T. Evans, - -	Buffalo.
Joseph Austrian -	Chicago.	James Ash, - -	Buffalo.
David Vance, -	Milwaukee.	W. Bullard, - -	Buffalo.
R. P. Fitzgerald, -	Milwaukee.	J. J. H. Brown, - -	Buffalo.
W. Livingstone, Jr, -	Detroit.	W. P. Henry, - -	Buffalo.
James Millen, -	Detroit.	John Gordon, - -	Buffalo.
David Carter, - -	Detroit.	W. S. Brainard, -	Toledo.
E. M. Peck, -	Detroit.	L. S. Sullivan, -	Toledo.
D. C. Whitney, - -	Detroit.	A. W. Colton, - -	Toledo.
H. S. Hodge, - -	Detroit.		

CLEVELAND, O.

The annual squadron sail of the Cleveland Yacht Club was held on Decoration Day. Commodore Gardner reviewed the fleet in an enjoyable spin to Rocky River and return.

Mr. Charles H. Keep, secretary of the Lake Carrier's Association, of Buffalo, attended the meeting of the Finance Committee held on Wednesday at the office of the president, Mr. M. A. Bradley.

The steel steamer Spokane, which has just been lengthened about sixty feet, cleared from Duluth with 90,000 bushels of grain on a draft of 13 feet 10 inches forward and 14 feet 4 inches aft.

The steamer J. J. Hill, recently built by Morley, of Marine City, under special survey arrived at this port Friday for the first time. She came light from Kingston, where she unloaded a cargo of 47,000 bushels of wheat brought down the lakes on a draft of 13½ feet.

Among the vesselmen visiting the port this week were F. W. Wheeler, Bay City; Capt. Wm. McCarthy, Oswego; Capt. John Shaw, ships-husband of the Shaw-Eddy fleet; A. A. Parker, of the firm of Parker & Millen, Detroit, and Harvey C. Beeson, publisher of the "Inland Marine Guide."

Compass Adjuster Frank Morrison, who has made the trip on the new steel steamer Samuel Mitchell, recently launched from the yards of the Globe Iron Works Co., says she is one of the most successful boats, both in carrying capacity and speed on the lakes. Her engines worked perfectly, not requiring to be stopped once on the trip. She loaded 2,100 tons of ore, drawing, with her fuel in, only 13 feet 9 inches. On the long run from Two Harbors to Whitefish Point, making about eighty turns, she averaged thirteen and one-half miles an hour.

A large force of men are engaged at the yards of the Cleveland Ship Building Co. in finishing the work of the second monitor. It is currently reported that another monitor keel for a 350 feet vessel would be laid at once, but, while the company will no doubt lay another keel at an early date, there is no movement in this direction at the shipyard, and the 700 feet of construction ground appears to be laying wide open for new contracts. The new monitor will probably be built to the order of the company.

The Detroit and Cleveland Steam Navigation Co. are enjoying an excellent patronage in the freight and passenger service. The excursion steamer City of Detroit leaves the foot of Superior street each day at 9 a. m. for Put-in-Bay, and society excursions are booked well ahead.

TheChase Machine Co.have received an order from Mr. H. J. Johnson, owner of the Helvetia, to fit out that vesesl with pumps, deck engine and boiler, two other similar outfits are also being got out. A large amount of marine repair work, boiler and steam pipe covering, etc., is also being done by the firm.

Mr. Harvey C. Beeson, of Detroit, has been spending the past week in the city on business connected with his annual publication "Beeson's Inland Marine Guide," and was among the interested spectators at the launch of the "Columbine," speaking of which he said, when men like Mr. Smith (Superintendent of the Globe Ship Yard) get launches down as fine as this one, where a boat just drops into the water within an inch of where they calculate to have her, and where there is not so much as a couple of rockings to and fro, I guess I will have to quit attending launches, the inspiriting chances of even a minor casualty have all disappeared. Mr. Beeson is as active as ever and says that his entire summer will be given up to efforts tending to increase the circulation and popularity of his already wide and favorably known publication.

Monday the 30th dawned warm and cloudless and the bright sunshine, almost the first of the summer, shed its rays on the citizens of Cleveland and their visitors from all over Ohio to a number seldom seen on our streets. From every point of vantage the national colors, the dear old flag, the red, white and blue, for whose entirety of stars and unity of bars, the boys in blue fought nearly a quarter of a century ago, flaunted its folds. The parade of the various military and civic bodies, prominent among whom were the letter carriers' organization, to the number of one hundred and twenty, all in bright new uniforms and marching in excellent order. The flowers left on the graves alike of the unknown as well as the known heroes can but wither and die, but the decoration custom teaches to the rising generation as no words ever could the nation's love for and glory in her sons who having taken up a higher citizenship laid that of American down only with their lives that we who to day honor self in honoring them, might the better enjoy it and all that its having implies. Long may the steps of survivors of our rebellion reverberate over our streets to keep us ever mindful of their comrades gone before.

CHICAGO, ILL.

Special Correspondence to The Marine Record.

The Independent Tug Line have purchased the tug D. P. Hall, of Ludington. Her dimensions are 80 feet long over all, 16 feet beam, 9 feet hold, and engine 20 by 22. She will make an excellent tug, both for inside and outside work, and will be a great addition to the company's fine line of tugs.

Captain Stephen Jones has resigned the command of the barge Churchill, of the Warde Transportation Co., and has been appointed to the passenger steamer Corona, of the same company.

The splendid steam yacht Saint Catherine, recently built by the Detroit Boat Works for Michael Cudahy, of this city, has arrived here. She is a little beauty. The splendid steamer Leila, recently purchased from Detroit parties by the Argo club, of this city, is also here. She is excellently furnished andfitted. It is claimed she is a 18 miles per hour boat.

At Miller Brothers shipyard the schooner Surprise is on dock receiving repairs to damage occasioned by her going ashore, the steamer Mabel Bradshaw was in dock for a new wheel, the steamer Puritan for repairs to stern bearing, the sloop yacht Druid for bottom cleaning, the steamer Berrien for bottom calking, the steamer Pilgrim for repairs to damage done by collision with the steamer Kalamazoo, comprising new stern, new plank on bows and new cants.

Captain Charley Moore has resumed command of the schooner Fanny O'Neil.

The steamer J. H. Pauly, of Milwaukee, was purchased here last Friday by L. Cook, of Detroit. Consideration $12,000.

Shipping Master Biemel, of the new Lake Carriers Association, is doing good work and has furnished several vessels with crews during the past week. He is a stolid appearing man, who intends to attend to his business and let others alone, unless they interfere with him.

The missing Captain P. W. Egan returned here Saturday and is reported as having told a most remarkable story of his being assaulted and robbed and rendered insensible in this city and being taken to Rochester N. Y., without his knowledge. It is hard for him to make Chicago people believe this unreasonable tale. They are not so easily gulled.

Captain H. J. Hatch has been appointed master of the barge Michigan, vice Captain P. Peterson, resigned.

The Norwegian steamer Wergeland arrived here last week from Bergen, Norway, laden with herrings and cod liver oil. Thousands of people paid her a visit and her captain and officers and crew have received quite an ovation of feasting and kind treatment since their arrival in port, and their Scandinavian friends presented the steamer with a very fine American flag. The Wergeland went up the river Monday to load a cargo of flour, provisions, etc., for Bergen, Norway, and leaves here Wednesday.

The Goodrich Company's splendid twin screw steel steamer Virginia has been in Burger & Burger's dry dock at Manitowoc for the past ten days and has received two new propeller wheels and had her stern bearings fixed. This is the first steel steamer and the largest the well known and enterprising firm of Manitowoc ship builders have ever docked. They enlarged their dock last year and are now reaping the benefit of their enterprise.

The Seaman's Union feels very sore over the placing of a Lake Carriers' Association crew, by shipping-master Biemel, on the barge Michigan, as an especial fight has been made against that craft for several years. A large standing committee of union men are constantly about the Lumber Exchange building where the Lake Carriers' shipping office is located, and lumbermen and others around there look for trouble at any time. Biemel, who is sworn in as a special policeman, and a regular police officer with him, say, however, that they have no fears.

Two fine new sail yachts have just been completed at Bagley's boatyard. One is the Henrietta, owned by W. E. Davis. She 20 feet 4 inches in length over all, and 6 feet beam. She has one spar, and will carry a cloud of canvas, sloop rigged. She is intended for Delevan Lake, but will remain here for a month or six weeks. The other yacht is intended for regular lake front cruising, and is owned by English Bill. She is 40 feet in length, and will be fitted out for season cruising.

The libel for salvage on the burned steamer W. P. Thew will not interfere with the work of rebuilding her. If any claim is allowed for the services of the steamer Sailor Boy it will be paid by the insurance companies and the owners of the steamer are not in the least interested.

(*Concluded on page nine.*)

THE WEEKLY DETROIT BUDGET.

The schooner Young America, of Grummond's fleet, which has been fitted out as a lighter and carries a steam hoister, is anchored off the foot of First street. The hull is painted black, and running almost her entire length in great white letters, that a Detroit paper says may be read from Sandwich point to Belle Isle, on her sides are the words, "Lighter, Steam Hoister." Those Detroit newspaper men must have great eye-sight!

The engine building and erecting shops, as well as the mammoth boiler plant of the Detroit Dry Dock Company, the largest in Michigan, located at the foot of Orleans street, are rapidly approaching completion, and by June 10 the finishing work will have been given the entire new buildings and mechanical plant,

The dock property of Edward W. Bissell & Co., at the foot of First street, has received during the past month a very general overhauling. A fine iron roof resting on iron columns covers the entire dock. Lit, as it is, by electricity, some sixty lights, it makes a fine appearance at night.

Our old friend Captain Alexander Ruelle, whose reliable harbor Tug line is known to every vessel man that has comings and goings in and out of the "City of the Straits," has taken on quite an active life again since his son Charley, (who was his right hand man about the office), took to sailing. Horace and John Baker, who, in the past year or two, have won quite a name as successful wreckers, are about town, saying nothing and looking wise. It is said they have made and laid away several coins the past season. Well, they deserve success, having, as they do, always a good word for others.

The steamer "Depere," of Grummonds Mackinac Line, has a cabin surpassed for size and appearance by very few lake steamers.

Among marine men in Detroit during the past week were J. M. Jones of Toledo; Capt. Geo. P. McKay of Cleveland; James J. Lynn of Port Huron, and J. G. Mullen, of Amherstburg, Ont.

The Idlewild has begun running regular on the Toledo route. The Darius Cole, which took her place on the Port Huron route, made the run down on the 26th, including stops, in five hours and eight minutes. Passenger agent Bielman is making arrangements for handling his passenger traffic as never before, and is assured of the largest season's business the line has ever known.

Rumor says the steamer Milton D. Ward now lying at the Springwell's Dry Dock is about to go into the hands of Canadian parties, "not this summer." See!

Ward's Lake Superior Line, the Shoal Water Transportation Co., and Pack, Woods and Co.'s boats are among a number which run to Bissell's Dock foot of First street.

Among the exhibitors of articles of interest to the lake marine, as prominent a one as any at the Columbian Exposition, will be the exhibit of Andrew J. Morse & Son, of Boston, manufacturers of diving apparatus, who are represented by H. D. Edwards & Co., of this city.

A. A. Parker and John S. Quinn, who are on a vacation down at Montreal, are expected back shortly.

The new steamer Promise, of the Detroit Belle Isle and Windsor Ferry Co.'s Line, will go into service, June 15th. This line is becoming rapidly popularized under the untiring management of Messrs. Campbell & Avery. Captain Clinton, master of the fleet, has his steamer better equipped than ever for safety and dispatch in handling the crowds using the Belle Isle Boats.

The Wyandotte yards of the Detroit Dry Dock Co., with several steel vessels in various stages of completion, presents a lively scene. The work on the river steamer building for Ashley and others is being rapidly pushed.

Lou Cook has bought the steamer J. H. Pauley, and will take her to Lake Huron. The consideration is said to be $12,000.

Wheelsman May, of the steamer Australasia, a resident of Buffalo, fell into the hold and was badly injured on Friday last. He was moved to the Marine Hospital.

THE COLLISION IN DETROIT RIVER.

The tug Washburn, after being alongside the Majestic in Detroit River on Sunday night, cast off, and before proceeding to her dock the captain states that he checked down and looked around to see if anything was coming. He saw no lights, so he ported and rang speed bells. A few moments later he saw a hull bearing down on the tug. He blew two whistles for the steamer to pass under the Washburn's stern, but received no answer. In another instant the tug was struck by the City of Mackinac. Capt. Burns says he was thrown into the water, but managed to climb on to the stern of the Mackinac. He saw Mr. Hurley, the owner, and engineer Robison struggling in the river. The tug reached shoal water.

Mr. Hurley had on a heavy overcoat which probably prevented his keeping afloat. John Robison, the engineer who was drowned, was a brother of W. F. Robison, the Majestic's engineer, who had been temporarily in charge of the engine. It was believed that Capt. Lawless and the crew of the Majestic knew nothing of the disaster, as she kept on her course in the dark. Search has been made for the bodies of the two drowned men. And now we would ask what about this lubberly revised head and stern light craze? With lights showing all around the horizon something ought to have been sighted!

BOTTOM REPAIRS ON A STEEL STEAMER, EXCELLENT RECORD MADE BY A CLEVELAND SHIPYARD.

It is worthy of recording in this age of craze on the admission of foreign-built ships to American registry, that this seemingly unappreciated industry has assumed such proportions on the chain of lakes as to vie with the best work of construction and repair work in any part of the world, and at figures too, which according to eminent British authorities, are equal to those of the best equipped and oldest established shipyards on the Clyde, or elsewhere.

In this connection we are pleased to note the following particular work which we venture to say is not frequently excelled:

On May 20th., at 5 p. m. the steel steamer Republic left the Ship Owners' Dry Dock after a thorough overhauling of her bottom which was damaged on her first trip on the opening of lake navigation by the rocks in the channel abreast of Topsail Island. On May 9th., Mr. John H. Smith, Superintendent of the Globe Iron Works Co., placed a gang of men on her working daytime only, taking off outside plates, cutting out floor plates frames and reverse bars, and from the appearance of her bottom, it was surely an undertaking which surprises us, that the work was completed in eleven days. We can give but a faint idea of the amount of work done, in this short article, so that it can be understood by readers not acquainted with the manner of constructing the modern water bottoms on steel steamers, but those in the business may clearly understand the magnitude of the work.

On the starboard side 21 old shell plates were taken off, and trames, reverse bars and floor plates inside were repaired, and 21 new shell plates put in place; 30 floor plates were taken out, straightened and replaced as before; new plates put in where necessary and all double strapped; 47 frames and reverse bars were repaired, rivets cut away, and frames and reverse bars straightened, each butt double strapped, and where broken repaired with strap or old piece taken out and new inserted and properly strapped. On the port side 5 old shell plates were taken off and replaced by new ones, frames, reverse bare and floor plates inside repaired and 4 old shell plates taken off, re-rolled and replaced, 11 floor plates taken out, straightened and replaced as before, new plates put in where necessary all thoroughly rivetted and but strapped. A total of 26 new shell plates put on bottom and 13 old shell plates re-rolled and replaced. Her bottom was thoroughly recaulked and made tight, and rivets hardened and tightened where necessary.

An idea can be formed of the damage done when we say that five men abreast could walk through the holes in her bottom when we saw her in dry dock the first day.

When this steamer got on the rocks at Topsail Island she was loaded with a cargo of 2,300 tons of coal for Duluth, and after placing a few hundred tons on a lighter, proceeded on her way to Duluth, Minn., discharged her cargo, and loaded 70,000 bushels of wheat, which she delivered to the elevator at Buffalo, N. Y., without wetting a grain, steaming a distance of over 1,500 miles with her bottom ripped open nearly two-thirds her length without any covering to keep water from entering her water bottom, and sailing one thousand miles of the distance loaded with wheat. Where can you find a vessel that has done her equal?

The London *Engineer* gives an interesting paper read before the Society of Naval Architecture in regard to the standing of the British war ship Victoria, giving an account, with sketch of her bottom when docked. In comparison with the damage sustained by the steel steamer Republic, and the feat of steaming over 1,500 miles loaded after her bottom was broken up, as stated in this article, it stands far ahead of what the *Engineer* took such pride in showing.

LAUNCH OF THE CURLEW.

On May 3rd., another Canadian revenue cutter, the Curlew, was launched from the Polson shipyard at Owen Sound. A special train took a party up from Toronto to add to the large crowd who witnessed the knocking out of the dog shores. The Curlew is a sister cruiser to the Constance, who has just gone down to Quebec to be fitted out. Dimensions of the Curlew are: Length, 125 feet over all; beam, 19 feet 6 inches; depth of hold 11 feet 3 inches; draft, 9 feet. 6 inches. She will be fitted with compound engines, having a high pressure cylinder 18 inches in diameter, and a low pressure cylinder 36 inches in diameter, each with a 24-inch stroke. There will be steam gear to work the anchors. She will carry three week's supply of coal in bunkers, so arranged as to protect the machinery. Three Nordenfeldt guns will be stationed on her turtle-shaped deck. The captains cabin is on deck forward.

The officers' quarters, saloon, storerooms, ammunition rooms etc., are between decks forward.

A NEW LINE OF STEAMERS.

The Soo Co. has just provided a new line of steamers to run on Lake Michigan between Gladstone and Traverse City, connecting at the latter point with the Chicago & West Michigan, and Detroit, Lansing and Northern system, running directly to Muskegen, Grand Rapids, Bay City, Saginaw, Lansing and Detroit with connecting lines reaching into all parts of Ohio, Indiana, and the East.

LAKE SEAMEN'S WAGES.

The Chicago committee of the Lake Carriers' Association have adopted the following scale of wages for the new shipping office at that port. Seamen on sail vessels are to receive $1.75 per day, when paid off at the end of the trip, or $1.50 a day when kept on board when the boats are in port. On consorts of steamers the wages is $1.25 per day. The union wages is $2 a day all around. The scale for engineers and firemen remains the same as that of the Cleveland Vessel Owners' Association, but that cuts little figure with Chicago boats, which are chiefly interested in sailors' wages.

"Our shipping office," said Captain John G. Keith, "will be amply protected from any interference by outsiders. We are waging no war upon the union, and if union sailors want to ship with us they can do so, but at our scale of wages only. We are, in fact, waging war upon nobody, but intend to conduct our own business in our own way and see that it is not interfered with."

The barge Newell Eddy, grain loaded, with the first Bielmel crew aboard, left the harbor Monday under police protection and dropped anchor outside, the officers coming ashore on tugs. The steamer Charles Eddy, which tows the Newell, took the barge in tow, and proceeded for Buffalo.

It is further urged that $2 a day is too much money as freights are now. One of the largest owners of lumber vessels said: "By keeping wages up so high when freights were low the union did a great deal toward driving sail craft out of the grain trade and making the service, as it is, almost wholly steam and towing. This change is now taking place in the lumber trade, and as the sail vessels disappear, berths for sailors also disappear, and berths for deck hands are created. The union is gradually working out of existence. Men can be got on steam barges at from 50 cents to 75 cents per day cheaper than on sailing vessels, and the next craft I bring out will be a steam barge. Numerous other sail vessel owners view the situation just as I do, and no more sail craft will be built. Three years from now the schooner fleets trading to Chicago will have been supplanted by fleets of steam barges, and deck hands will be in request then, and not sailors at all.' Such seems to be the general impression among vessel owners.

WORLD'S FAIR TONNAGE.

E. D. Comings of Chicago has been arranging the details of the tranformation of the large wooden freight steamer Nebraska into a passenger excursion steamer to operate during the World's Fair. It is proposed to give the Nebraska a handsome canopy deck surmounted by a pilot house. The 'tween-deck space is to be utilized for state-rooms. Instead of the usual deadlights along the sides of the vessel, lights is to be introduced through deadlights let into the promenade deck. A wide hallway running the entire length of the boat will afford the necessary ventilation. The staterooms are to be furnished in first class style throughout, and ornamented with Lincrusta walton. Hurson sliding berths are to be introduced. Entrance to the boat will be provided between decks by two companionways, one forward and one aft. A powerful electric light plant will afford the necessary illumination. As the Nebraska is 267 feet long and 35 feet, beam it is calculated that she will accomodate upward of 2,000 day excursionists. The work of transformation will occupy about three months. When completed the Nebraska is to be placed on the route between St. Joseph and the World's Fair ground. Capt. McDougall is authority for the statement that the passenger steamer for the World's Fair will be begun at the American Steel Barge Works this week. Only one vessel will be constructed at first, but she will be 350 feetlong and built on the principle already so widely known.

LAKE ONTARIO COAL TRADE.

Towing, as well as loading and discharging charges were formerly allowed in the Lake Ontario coal trade. The towing bills have now been disallowed, and a special from Toronto states that wholesale coal dealers and marine men at that port allege that this is a retaliatory measure on Canada because of the refusal of the Canadian government to allow American vessels a toll advantage in the Welland Canal, the coal firms who own tugs at Oswego have refused to allow free towing out, of Canadian coal-laden craft, which has hitherto been the custom. This costs Canadian coal importers 2½ cents per ton for coal. The object of the United States firms is to exclude Canadian craft from carrying altogether. This view of the question is contradicted and explained from Oswego by stating that heretofore the coal companies paid the towing to and from the trestles, but this year all companies along the entire chain of lakes, determined not to do this and the rule has been rigidly enforced, all vessels whether American or Canadian, are now obliged to pay their own towing bills. There is no discrimination.

NEW TONNAGE.

The following lake craft have received their official numbers from the Bureau of Navigation, Washington, D. C., during the week ending May 21, 1892:

Sail vessels—Alex Anderson, Port Huron, Mich., 728 net tons; All Talk, Cleveland, O., 10 tons net; Athene, Port Huron, 7 tons; Indian Bill, Grand Haven, Mich., 31 net tons. Steam vessels—Samuel Mitchell, Cleveland, 1871 net tons; Visitor, Sandusky, O., 37 net tons; May Scott, Grand Haven, 15 net tons.

THE POINT PELEE FOG SIGNAL.

In a series of articles on the aberration of audibility of sound published in THE MARINE RECORD recently it was clearly demonstrated that the sound froma fog signal might be heard a varying distances and n t at all at certain intervening points, although the blast was practically continuous. Certain fog signals on the lakes have been pointed out as having this characteristic and we had about concluded that Point Pelee (The Dummy) on Lake Erie was a marked instance of this wave sounding feature, which has again been called to the attention of the lake marine.

Captain Dwelle, of the steamer Louise, makes the following reply to a report in one of the Canada papers concerning the blowing of the fog horn at the Dummy light:

SANDUSKY, O., May 26, 1892.

Hon. Wm. Smith, Deputy Minister of Marine, Ottawa, Ont.:

SIR.—I desire to call your attention to the fact that the Dummy light is not properly cared for, a neglect that causes vesselmen much trouble. I am the captain of the American steamer Louise, of Sandusky, O., and am running between Sandusky and the Canada shore, making round trips six days a week. There has been a great deal of fog and "thick weather" this spring, and the neglect of the keeper to blow the horn has been a source of great annoyance to vesselmen.

On the night of the 12th inst. there was an unusually heavy fog in that region that lasted from midnight until 7 o'clock on the morning of the 13th inst. The fog horn was not blown, and in consequence I came very near going aground; in fact I would have gone aground had not my engine been quick enough to prevent it the moment we discovered our dangerous position. I notice from an article in a Canadian newspaper that Mr. Grubb accuses me of calling him an indecent name on that occasion. That is not true, for at the time I was close to the Dummy Mr. Grubb was not on the light. I saw his boat on the shore. When I passed the light, a man, whose name I do not know, was blowing a tin horn. At 7:30 a. m. the fog cleared up, and at 7:50 the fog horn was first blown.

On the morning of the 15th inst., the schooner C. H. Burton, of Lorain, O., Captain C. H. Chilson, ran aground there at 4 o'clock in the dense fog The horn was not blowing at that time, and was not blown until 8.55 a. m. The propeller Telegram pulled the Burton off at an expense of of $95.

On the same day, (May 15th), the tug Hercules, bound for Romney, was delayed several hours by the heavy fog off the Dummy. The horn was not blowing, and the captain did not dare proceed.

The Dummy is one of the most important lights on the Canadian shore. It is a good light when it is not neglected, but the keeper does not attend to it with the care that is required. Several vessels besides those referred to above have had rouble at the Dummy this spring, and in behalf of other vesselmen and myself I respectfully ask that you give the matter your earliest attention that the present loose and negligent service may not continue to the detriment of marine interests.

Yours respectfully,
ALONZO W. DWELLE,
Master Str. Louise.

THE HURONTARIO SHIP RAILWAY.

The Hurontario Ship Railway Co. has been organized and the promoters of the project now state that the building of the road is now assured. The final plans of the ship railway proposed contemplate the carrying of vessels as easily and safely with in every way as little strain on the boats as in ordinary voyages on the ocean or on the Great Lakes. It is intended to have the ships "water borne" as it were, that is, with a flexible carriage and supports, so that any slight jars or twistings in the railway would not bring any strain to the vessel. Mr. Corthell, in the preparation of a paper which he wrote for the Canadian Civil Engineers, of which he is a member, had access to all documents and physical data of all the routes of proposed waterways between the Great Lakes and tide water, but seeing early in this investigation that the route for the railway between Georgian Bay and Lake Ontario would be far superior to any other proposed, he made special examinations of this route. He not only took into account and worked up all the data in the shape of maps and plans dating for years back, but also had a special examination made of the ground by one of his associates, who spent considerable time before detailed estimates could be made for the proposed road.

Mr. Corthell states that there could not be found anywhere 66 miles of country better adapted, in easy grades, for a natural route. When asked regarding the terminals he said that they had not been definitely determined upon, but stated that they would be placed at the best possible points. The character of the work requires that it should be perfectly straight or as near so as the configuration of the country would permit. It will, therefore, pass the small divide between the two bodies of water, from near Collingwood on Georgian Bay and the vicinity of Toronto on Lake Ontario. The road bed will be 50 feet wide, and will have six paralell steel tracks of the heaviest kind ever rolled.

The estimate of the cost given by Mr. Corthell some time ago was $15,500,000. This was based upon reports of his associates, however, and not from his personal examination. His present visit has convinced him that this sum would be ample to construct and put in operation a ship railway between the two points to carry vessels up to 6,000 tons burden. He is quite convinced that the building of the road would compel the enlargement of the lower Canadian canals. He also said that it was utterly impossible to provide for the enormous commerce of the lakes by any possible enlargement of the Erie canal, and he is pronounced in his opinion that the best and cheapest course to the seaboard is by the St. Lawrence river route, of which the railway will be an essential part. He said already the demand for the railway was being felt in the North-west and in Northern United States.

A NEW SUBMARINE OUTFIT FOR DEEP SEA DIVING.

Last week P. M. Farlam and G. H. Crosby, of Chicago; J. C. Hyer, of Troy, N. Y., and E. H. Brault and A. M. Cobb, of St. Ignace, Mich., arrived at Alpena, Mich., with the intention of doing some submarine prospecting work after the Pewaubic's cargo, sunk in deep water on Lake Huron, off Point Aux Barques. The party had a new diving suit—the invention of E. H. Brault. The tug Frank W. was chartered. and the party was conveyed out to deep water, where the new suit was tested. The new invention consists of a metal suit that covers the head, body and a part of the thighs. Over that, from the shoulders to the bottom of the feet, is put on an ordinary rubber diving suit. The helmet and upper part of the armor is made of aluminum, and weighs a little over 20 pounds; the breeches part being made of brass. The suit was put on by E. H. Brault and he descended to a depth of 147 feet and remained under water 43 minutes. The air pump did not work quite satisfactory and further tests will be made. The diver, on reaching the surface was not the least exhausted, but was nearly frozen, and said he experienced no trouble from the water pressure—in fact did not feel the great pressure, as his armor prevented the water from touching any part of his body and head. He declares that he can descend over 200 feet in water. The diving suit is to be fitted with a telephone and an electric light. It seems to solve the difficulties of deep water diving.

NAUTICAL INSTRUCTION IN FRANCE.

A French Parliamentary committee has been inquiring into the best steps to be taken for bringing about a reform in the imparting of professional instruction to aspirants for the position of master in the mercantile marine. The result of the labors of this committee is a recommendation to the Minister of Marine that a naval school of two degrees should be established. It is proposed that for the first year a preparatory course of studies shall be provided on board a vessel lent for that purpose by the State, to a hundred pupils, who will pay for their own keep. This preparatory course to be under the control of a board of management and a "finishing committee" both taken from the civil ranks. For the second year a course analogous to that of a nautical college would be provided on board a vessel belonging to the national fleet. The number of pupils to be admitted to this second degree, after examination, to be sixty, and these would have to give a year's naval service under the care of naval instructors. This year's service would have to be succeeded by two additional years' service in case the pupils could not obtain an officer's certificate. The Minister of Marine has the matter under consideration.

NORWAY TO CHICAGO.

The hardy Norsemen are just as much imbued with the maritime spirit as of yore, as witness the arrival last Thursday at Chicago of the Norwegian steamer Wergeland from Bergen.

The Wergeland is the first freight steamer to reach the lakes from the north of Europe, and being of light draft, it was thought that the trans-shipping charges through the St. Lawrence systems of canals would not be so heavy as to swallow up the margin on a moderate freight. The $1,000 which it cost to ferry through the few miles of an artificial waterway, took "the gilt off the gingerbread," and the outward trip at least was not a commercial success.

The Wergeland was built in Bergen, Norway, in 1881, for the fruit trade, and is a steel vessel of 400 tons register. Her draft, loaded, is 14 feet, and she carries a crew of 14, all told. She clears from Chicago this week, with flour and other provisions.

In 1862, the bark Sleipner arrived at Chicago from Bergen, and cleared light. The following year a small yacht reached the lakes from Norway, and in 1866 the brig Vida, loaded with fish, found her way to these waters. Twenty-six years later the present arrival has marked the age of steam in the Norwegian venture.

SURVEYING ST. MARY'S RIVER.

A surveying party, under the command of engineer O. B Wheeler, has commenced operations for making a government re-survey of St. Mary's River by triangulation. Starting at Fort Brady, the entire section will be carefully and accurately surveyed down to Detour, and joining the triangulation survey of the Straits of Mackinac, and a new chart formed of the ground as it now is, with this, the latest and best, Soo river pilots will probably be greatly benefited.

AN ENGINE BUILDING CONTRACT.

Wilson & Hendrie, proprietors of The Montague Iron Works, Montague, Mich. have just closed a contract with E. G. Crosby & Co., of Muskegon, Mich., for a fore-and-aft compound marine engine, with cylinders 16 and 30 inches by 24-inch stroke; also for one marine boiler 8 feet in diameter by 12 feet long and tested for 130 pounds steam, to be placed in a new boat to be built at Grand Haven, Mich., by the Grand Haven Ship Building Company, for Crosby & Co.

DAVID KAHNWEILER, manufacturer of metallic and wooden life-boats and life-saving appliances, has removed from 146 to 150 Worth street, New York, to 19 and 21 Roosevelt street.

Notes.

MR. GUS SIDENBERG, after using a Roberts boiler in the "Volanta" for three years, has had one built for his large new steam yacht "Theresa."

THE New York, Ontario & Western railroad is preparing to build an elevator at Oswego to hold from 350,000 to 500,000 bushels. It will take the place of those recently burned and shows a disposition of that road to revive the grain trade of Oswego.

THE Union Steamboat Co., N. Y. L. E. & W. R. R. Line, W. Bullard, general manager, Buffalo, N. Y., will run the passenger steamer Nyack this season, between Buffalo and Duluth and intermediate points. It is noticeable that the fares are more than moderate, former rates being almost cut in two. It is safe to predict for the Nyack an unprecedented volume of passenger traffic under the cut rates published for this season.

THE initial number of the Sunday *Mercury*, West Superior, Wis., comes to our exchange table this week, as a valuable addition to our Northwest literature. In the salutatory, Geo. H. Teague and Gov. A. P. Swineford state that the New Northwest will amalgamate interests and publish under the house-flag of the *Mercury*. West Superior is one of the most thriving cities in the world, and the fact may be widely heralded by the staunch financial support evidenced in the news papers.

THE tug Gladiator was libeled at Detroit last week on a disputed account for a small amount of wages claimed by Engineer Thos. Seely, O. O. Bush and George Atkin, firemen, and H. Day, cook. The matter was finally settled, and the case is of little moment only to point out the existing condition of the libel laws in Michigan as well as other states, where a vessel may be tied up for a disputed account, thus mulcting the owner into paying what under a different course of procedure would probably be disallowed in the majority of cases.

Conger & Conger, attorneys and counsellors at law, Washington, D. C., make a specialty of marine and shipping business before the Departments and Congress. The senior member of the firm, Omar D. Conger, is, by virtue of his long experience on committees of commerce in both House and Senate, one of the most qualified men in the United States to transact legislative business of a maritime nature, and any of our friends entrusting their interests to his firm will undoubtedly meet with the most satisfactory results throughout the course of their business relations.

THE Peary artic relief expedition, which is expected to leave Philadelphia this week, has not yet received the total amount necessary for its success. While those directly interested have guaranteed the money, so that there is no question about the expedition's departure, there is still a call for contributions. Those who are best acquainted with Lieut. Peary's situation, whatever they may think of lieutenants' foolhardy methods, know full well that he must be relieved. If he should not be, the ills bound to befall him would be laid at the door of the country at large. The best thing that can be done under the circumstances is to fully equip the Heilprin expedition, and not send it out handicapped in any way.

THE Milwaukee *Wisconsin* is responsible for the following: "The gross earnings of the Northern Steamship Company of West Superior for the season of 1891 were about $600,000. These figures are very reliable, and are less than $2,000 out of the way at the outside. The Northern Queen was the banner boat of the magnificent fleet of six vessels. Her gross earnings were $108,000. The Northern Wave comes next with gross earnings of $106,000. The balance of the fleet averaged a little over $95,000 each. The distance from Superior to Buffalo, taking the course usually followed by these vessels, is 1,100 miles. The average time occupied by a single trip was 78 hours, although the record of 73 hours has been made by some of them. The average time between Buffalo and Detroit was 21 hours; Detroit to Fort Gratiot, 5 hours; Fort Gratiot to Detour, 17 hours; Detour to Sault Canal, 5 hours; Sault Canal to West Superior, 30 hours; total, 77 hours."

A CORRESPONDENT in the "American Machinist" says: If engineers, machinists and milwrights in general and pipe-fitters in particular knew of the good qualities of graphite, I dare say there would be ten times the demand for it. Its lubricating qualities are questioned only by the impractical and it is this quality alone that sounds its key note, so to speak. Let me describe a few of what I consider its most important uses. As above stated its primary object is its lubrication and it is to this fact we must credit good pipe joints and cool bearings. In making pipe cement, (or as I would term it, pipe smear,) it is not necessary to use the best oil or grease, as it is the Graphite and not the body in which it is suspended, that makes the mixture valuable and the joint perfect. I use the drippings from line shaft bearings, caught in the ordinary way and mix it with the best Ticonderoga flake Graphite so that it can be applied with an ordinary sash tool. During the past three years I have used about fifteen or twenty pounds of dry Ticonderoga flake Graphite for pipe joints, cylinder heads, piston rod packing, etc. Bolts, smeared with Graphite mixed as above, I have unscrewed after having been in the dampest places for upward of two years or more, proving the antirusting qualities of Graphite. To cool hot bearings put it on as thick as it will mix with oil.

Almost any oil or grease will answer but don't use poor Graphite.

The Marine Record.

ESTABLISHED 1878.

Published every Thursday, at 144 Superior Street, (Leader Building,) CLEVELAND, O.

IRVING B SMITH. }
CAPT. JOHN SWAINSON. } - - - Proprietors.

BRANCH OFFICE,
CHICAGO, ILL., - - - 35 Franklin St.

THOMAS WILLIAMS, Associate Editor.

SUPSCRIPTION.

One copy, one year, postage paid, - - - - - - $2 00
One copy, one year, to foreign countries, - - - $3 00
Invariably in advance.

ADVERTISING.

Rates given on application.

CLEVELAND, O., JUNE 2, 1892.

THE Lake Carriers Association now realize that steady and persistent efforts are necessary to obtain just recognition at the hands of Congress in relation to aids to navigation on the Great Lakes. So that commerce may be carried on, $7,000 is paid by private subscription to maintain lights in Detroit river. Viewed at from any standpoint, it is an outrage to foist upon the owners of lake vessel property the annual keep up of national aids to the general commerce of the Northwest, nor can a parallel case be found in any other portion of the globe. Congressmen representing lake districts are surely getting weak kneed or they have lost interest in the wishes of their constituents.

THE attitude of the Lake Seamen's organization in taking the law into their own hands by driving men ashore after they have shipped, and when the vessels are on the point of departure, calls for more strenuous efforts on the part of those whose province it is to maintain law and order, both state and national, These officers should take the initiative in firmly preserving the peace at all shipping points, accepting the aids and facilities given by private citizens as auxiliary to the legal powers vested in their own hands. Up to the present time the disposition of action and events seem to be transposed, that is, the proper authorities hold back and insist upon private interests protecting their own rights this is being done in no vacillating manner; at the same time, state and national officers should perform their duty without requiring too much prodding.

TRIBUTARY TO THE GREAT LAKES.

James J. Hill, the railroad magnate, and owner of the Northern Line fleet of steamers has "taken the bull by the horns" as it were, and is about opening a transcontinental route from the Pacific to the Atlantic via the Great Lakes.

This important commercial highway has been ready for developing at any time during the past five years and millions of tons of the old world commerce will be readily diverted to the route. An indication of this is given in the recent arrival of first season tea by way of the Pacific.

But a few years ago, (say twenty) the finest clipper tonnage in the world competed for this lucrative honor, a decade ago the Suez canal changed the time and elements of transportation, and now the Pacific route shuts off all old world competition in the carrying trade of this product.

From Japan to the British Isles 11,000 miles have to be traversed, to the Pacific Coast, and freight ready for distribution over this vast continent only 4,300 miles. The large and valuable trade of China, Japan and Australia, is nearer to United States territory by thousands of miles than to the monetary center of the world. if London is understood as being such. Even Calcutta, the mart of East India commerce is less than 1200 miles nearer to England via the Suez Canal, than is the Pacific route to the United States.

It is no longer necessary to await the completion of the Nicaragua Canal to obtain a fair portion of this great trade, although very suggestive figures might be shown by the canal route to our eastern seaboard, nor is it improbable that California grain will find its way across the continent and by lake transportation to eastern markets.

J. J. Hill has made arrangements with the owners of a fleet of British steamers to take care of the ocean transportation and the Great Northern railroad will ship from its recently completed western terminal, and by transshipping at the head of the lakes carry the freight East for distribution in the States or for shipment across the Atlantic.

RECIPROCAL WRECKING PRIVILEGES.

The act providing for reciprocal wrecking privileges between the Dominion and the United States was passed in the fiftieth Congress, the bill having been introduced by Congressman Chipman, of Detroit. It directs the President to issue a proclamation establishing reciprocity in wrecking as soon as Canada is ready to take a similar step. As Canada has done her part, it only remains for President Harrison to receive official notification of Canada's readiness to reciprocate in this respect, and the presidential proclamation will issue simultaneously with that of the Governor-General of Canada. Yet, before such a proclamation is made, there should be a clause inserted in the act allowing the salvors, or as they are usually termed, the wreckers', privilege to salve the flotsam, jetsam, or lagan appertaining to the vessel as equipment, cargo, or passenger freight and baggage.

The anomaly of dividing the rescued property is brought to the front in the recent Russia-Celtic collision case on Lake Erie. In this case some 300 tons of general cargo was jettisoned previous to the vessel being run ashore on Canadian ground. The vessel was shortly released and towed to a port of repairs, but the jettisoned cargo and equipment of the vessel could not be recovered or again taken in charge because, forsooth, it floated, was submerged, or was held stationary in Dominion waters. Of this jettisoned cargo upwards of $8,000 dollars' worth has already been washed ashore, and it is questionable if shippers, owners, consignees, or the underwriters, can secure any portion of these goods without a cost equal to the amount of their original value.

Hitherto attention has been almost solely directed to the diving, pumping and towing services required on a stranded or sunken vessel, hence, the clauses in the reciprocal wrecking bill cannot be too explicit regarding the free and proper salvage of ship's apparel, furniture, cargo, outfit, and all appurtenances, nor should there be any loop-hole left open whereby charges, duties or tariffs might be collected upon involuntary importation such as would be washed up on the shores from a sunk or sinking vessel.

The spirit and sense of the reciprocal wrecking bill is, that all aids procurable may legally assist vessels in distress on the great lakes, thus promptly relieving from impending peril or total loss the lives and property of the citizens of each country, or the national tonnage.

This beneficent measure will not be carried out in a proper manner if the damaged hull alone is to receive the necessary aid to enable her to proceed to a port of repairs, while her cargo is held in bond on the inhospitable shores where it may have been driven through the action of the elements which was the primal cause of the accident.

The owner of the vessel recently stranded, acting for the best interests of ship and underwriters, visited the locality where the vessel was beached, and is quoted as saying that he was glad to leave the spot without getting bonded or being subjected to a personal tax on his attire, and he felt disposed to make a total abandonment of all goods washed ashore at that point. Under these circumstances, the Cornish child's prayer of centuries ago would become pertinent, with the "God bless mammy, God bless Daddy," and send a ship ashore before morning, part of it fulfilled by wreckers to decoy vessels ashore.

A wreck commissioner appointed from the custom-house district in which the wreck or casualty may have occurred should take charge of all such goods, not as importations, but holding them to the order of their owners without undue expense, and to whom they should be delivered promptly on application. The custom of barbaric ages, in claiming all that was cast ashore, ought not to obtain in this locality, nor at this time. We would therefore urge that the reciprocal wrecking courtesies be made inclusive enough to render a full and free assistance to every vessel, her hull, cargo and apparel, wherever stranded on the lakes, otherwise, the involuntary importation of stranded property, hulls as well as merchandise, might be with an equal show of justice levied upon to satisfy an inordinate tariff craze.

THAT DULUTH BRIDGE SCHEME.

A special from Duluth, Minn., of recent date states that:

The city council passed an ordinance giving the Duluth & Northwestern railway authority to construct a bridge across the harbor from the foot of Fifth avenue to Minnesota Point. The draw in the bridge will be about 1,000 feet from the harbor end of the canal. The bridge must be completed by July 1, 1893, as the approval of the Secretary of War must be secured. The marine interest will make a hot fight against the proposed bridge, as it will be in the direct course of vessels entering the harbor and will be a serious menace to navigation during gales.

From the foregoing it would appear that the completion of the bridge is placed anterior to the approval of the Secretary of War, though in so far as the opposition from marine interests are concerned the dispatch is eminently correct.

We would call attention to Sec. 7 of the River and Harbor Act approved September 19, 1890, a portion of which we quote. * * *

It shall not be lawful hereafter to commence the construction of any bridge, bridge-draw, bridge piers and abutments causeway or other works over or in any port, road, roadstead, haven, harbor, navigable river, or navigable waters of the United States, under any act of the legislative assembly of any State, until the location and plan of such bridge or other works have been submitted to and approved by the Secretary of War, or to excavate or fill, or in any manner to alter or modify the course, location, condition or capacity of the channel of said navigable water of the United States, unless approved and authorized by the Secretary of War.

Duluth has now one of the best formed natural harbors in the United States with a deep water approach. It is the only harbor for commerce or refuge in the locality, and is well known as the terminal point of navigation to the great northwest, the commerce of the port has increased 50 per cent. in the past three years, and there is every indication of the gratifying record being duplicated in the next three years. Aside from the foregoing the best interests of national commerce require facilities as, opposed to obstructions for its development, and on general principles, with a view also to the future increase of commerce there should be no artificial obstruction placed over, under or in a channel or fairway without the clearest evidence of its benefit, to the present and future needs of commerce.

It is in such cases as the foregoing that the Corps of Engineers, U. S. A., under the authority of the Secretary of War, exercise perhaps the most important functions of any arm of the national service, corporate schemes, purchased influences self aggrandizement, and the strong desire so frequently evinced to rob the next generation for passing advantages are all brought to the bar in evidence, dealt with in a skillful and unbiassed manner and only for the best interests of the country at large.

Any action taken by a city council authorizing changes in the harbor lines are premature and illegal unless sanctioned by the Secretary of War, we have, therefore no fear that a transtile will be thrown across Duluth harbor before the maritime interests have a chance to be heard, nor has any application for this latest scheme to bridge or tunnel the entrance to Duluth harbor yet reached the hands of the officials at Washington so far as can be learned at this writing, nor would the question be settled without a committee report, at the same time, owners of floating property may do much to "nip in the bud" schemes for artificial obstructions to navigation by making an early protest whenever their rights are assailed.

THE INLAND LLOYDS JUNE SUPPLEMENT.

The Inland Lloyds supplement for June, compiled by Manager McLeod, shows the enrollment, during May, of nine new boats, of which seven are steamers, and rated for insurance purposes as follows: The steamer C. F. Bielman, built by F. W. Wheeler & Co., Bay City, for Stewart and others, of Detroit, is valued at $130,000; the freight monitor Choctaw, built by the Cleveland Ship Building Co., for the Lake Superior Iron Company. $150,000; the passenger steamer Columbia, building by Murphy, of Buffalo, for himself, $30,000; the steamer J. J. Hill, built by the Morleys, of Marine City, on their own account. $80,000; steamer Iroquois, built by Lester, of Marine City, for Curtis & Brainard, of Toledo, $110,000; steamer H. J. Kendall, building by Anderson, of Marine City, for J. E. Mills and others, of Cleveland, $30,000; the Oval Agitator, built by Robertson, of Grand Haven, for the Booth Packing Co., of Chicago, $14,000; at Anderson's shipyard, Marine City, is also building the schooner Alex. Anderson, for N. & B. Mills, Pt. Huron, valued at $38,000; the Abram Smith, built by Smith at Algonac, for A. W. Comstock, of Alpena, is valued at $18,000.

ANOTHER SCHLESINGER DEAL.

The financiering of Mr. Schlesinger again comes to the front in the rumor this week that he had secured control of the Chapin Mine, thus relieving Mr. M. A. Hanna, of Cleveland, from the duties of the office. The complete details of the change have not been given for publication, but it is learned that some time ago Mr. Schlesinger got an option on the mine, and the office of the company has now been removed to Milwaukee as this is the home port, so to speak, of Mr. Schlesinger, he has probably effected an arrangement whereby he assumes control again of the splendid property of the Chapin Mining Co. It is further stated that $3,000,000 was turned over by Ferdinand and William Schlesinger to regain the management of the mine, but the fleet of steamers will be run as before and by the Cleveland interests.

There is also a rumor to the effect that Capt. James Davidson will be proceeded against for not delivering the big four to the contractor. Although it would seem that the features of this case bore an entirely opposite view, the property was certainly ready for Mr. Schlesinger if he desired to take it over and meet the payments on same.

The Huntington yacht Nautilus, recently purchased by Duluth parties, is now on a cruise along the north shore of Lake Superior. She is highly spoken of by her new owners.

(*Continued from page five.*)

The city authorities have served notice on all the tug captains that there must be no unnecessary whistling in the river, day or night, and especially in the draws of the bridges. Notices have also been served on the bridge tenders that they must stay awake nights, and that of the four bridge tenders two of them must be competent engineers.

The Delta Company's handsome steamers Romeo and Juliet arrived here last week to go into the excursion business. Captain A. Bassett is commanding the Romeo and Captain Nelson Napier the Juliet. WILLIAMS.

BUFFALO, N. Y.

Special Correspondence to The Marine Record.

The Codorus was successfully launched from the Union shipyard last Saturday afternoon, and will be ready for sea about July 1st. A large crowd witnessed the launch.

All the excursion lines on the lake and river are now running regularly.

Three of the union sailors who boarded the schooner Mabel Wilson at the breakwater, took off her crew and assaulted the captain, have been arrested on a charge of assault on the high seas, which is punishable by a fine of $3,000 and three years imprisonment. They were examined before United States Commissioner Hirschbech last week and held for further examination in $2,500 bail each and the witnesses, who were part of the Wilson's crew, were held in $500 each to appear at the further examination, which is set down for June 7.

Sunday night a strike of 'longshoremen was inaugurated by about 150 Polish laborers in the employ of W. J. Conners. More have since gone out, and all vessels now unloading have been well guarded by the police. What the intentions of the strikers are it is hard to tell. There has been no delay in unloading boats so far, but arrivals have been few, so it may be that the new 'Longshoremen's Union will wait until a large fleet is in port and then order a general tie-up.

The steamer Pearl is just out of dry dock. Her bottom has been calked, she has received a new main deck and stanchions. The steamer J. H Shrigley is also out of dry dock and started on her first trip up Monday night.

Very little grain has arrived the past week or two, and coal shipments for May have fallen off, showing 273,463 tons against 327,670 tons in May, 1891. The total shipments this season to June 1, are 385,902 tons against 416,207 last year. The raise in rates to Chicago and Milwaukee, for which vessel owners are fondly hoping, has received something of a set back in the collapse of Cleveland ore and Duluth grain freights. The large amount of grain tonnage reported as soon to leave Chicago for this port is causing shippers to hold out until its arrival, when, they say, the supply of vessel room will be equal to the demand, at no higher rates.

The W. H. Barnum has completed repairs and left here with a cargo of coal Tuesday night. The iron steamer Russia is also out of dry dock.

The Erie canal is doing very little business, and there seems to be but little hope of improvement. Rates rule steady at 2½ cents for wheat to New York and $1.50 and $2 for lumber to Albany and New York.

Four sailors held for assaulting the crew of the schooner Mabel Wilson in $2,500 bonds, were released on Saturday afternoon on bail said to be furnished by the Chicago Seamen's Union.

Messrs. Brown & Co., the vessel agents and owners, have about completed and furnished a handsome front office across the corridor from their present quarters in the office building, No. 202 Main Street. They will still retain possession of one of their old offices. The new office, furniture and trimmings, are finished in light oak, and the walls have been handsomely decorated.

TORONTO, ONT.

Special Correspondence to The Marine Record.

Capt. La France has resigned the command of the steamer Carmona, and has been succeeded by James Black, who has been mate of the steamer for several years.

Mr. W. A. Geddes, secretary of the Canadian Marine Association, left for Ottawa on Monday night. He will be met there by several Montreal gentlemen, and they will urge on the government the importance of placing a tug at Morrisburgh, to assist steamers to ascend the Rapid De Plat, as it is almost impossible for steamers to get through the Morrisburgh Canal, owing to the low water, and the obstructions thrown up by the dredgers employed in enlarging the canal.

The steamer Cibola commenced on Wednesday, making double trips daily between Toronto, Niagara and Lewiston

The Macassa, of the Hamilton Steamboat Co., is also making double trips between Toronto and Hamilton.

The steamer Empress, of India and Lakeside, which leave here at the same hour every day for Port Dalhousie, indulge in a quiet race daily, but owing to the improvements to the Empress during the past winter, she always leaves her opponent in the rear, but when the new steamer Garden City commences running on the same route, the Empress will have to make a heavier lead to come out ahead.

The steamer Spartan, of the R. & O. N Co., with Capt. Garrett in command, made her first appearance in port this season on Tuesday morning. Very extensive improvements have been made in her engines this winter, including new wheels, with feathering buckets, so that a decided increase of speed is looked for.

Capt. W. H. Goodfellow, compass adjuster, left on Sunday night to put in shape the compasses of the steamer Seguin. Owing to the regulations of the Government issued last winter, making the adjustment of compasses on passenger steamers a necessary adjunct to issuing of certificates, our friend, Capt. Goodfellow, has been kept very busy, and his work is so thoroughly done that captains of steamers can always make good courses.

Capt. William Parkinson left for Collingwood last week, to bring the steamer Imperial to Toronto, to be used in the passenger trade between here and Oakville. He got her as far as Port Colborne, when she was sold to be used in the trade between Kingsville, Pelee Island and Sandusky.

The steamer Greyhound left for Port Dalhousie last week, to be overhauled at Muir's dock. She will run between Toronto and Long Branch pleasure resort.

The following vessels arrived with coal: Schooners M. Annette, Dundee, Jessie Drummond, Sir C. T. Van Stranbenzie, S. & J. Collier, Lady Macdonald, Annandale, Speedwell and Grantham.

On last Saturday night a public meeting was held to discuss the Ontario ship railway project. Mr. David Blair, the provisional manager of the company, outlined the intentions of his company in a very able address. He explained Toronto's position as regards the lake traffic, and said the objects of the road was to shorten the route from the west to Europe and the Eastern States. The ship railway would save 300 miles of sailing and twenty-four hours of time, and Toronto would be the centre of traffic between the east and west. Mr. E. L. Corthell, who was associated with the late Capt. Eades in the construction of the Mississippi jetties, sent a letter to the meeting explaining that the work was quite feasible, that the volume of trade already passing the entrance of the canal was 25,000,000 tons annually, and that fifteen and a-half million dollars would build, and that the ship railway was by far the shortest route to the seaboard from Chicago and the west. The meeting was very enthusiastic, and a committee of citizens was appointed with power to add to their number to aid in the project. SPARTA.

BAY CITY, MICH.

Special Correspondence to The Marine Record.

The barge A. A. Turner brought in coal for Young Bros.

The steambarge Isabella J. Boyce received a new stem at the dry dock.

The sand sucker Ida Burton has been raised and will be repaired for active service.

The ferry steamer C. B. Hull is being repaired and painted preparatory to being taken to Duluth, to run between that city and West Superior.

The tug Geo Hand is in Wheeler's dry dock to receive a new stern post.

The steambarge S. C. Clark was pulled out last Friday on the Marine railway, in five hours time. This is the largest boat they have yet handled and she is now where they can give her a thorough rebuild. It will take about three weeks to complete her.

Wheeler & Co. have secured the contract for, and will soon commence work on a big steel tug for the Nicaragua Canal Co. The tug will be built of extra heavy material and will be very powerful. Her dimensions will be: Length 110 feet, 23 feet beam, and 11 feet depth of hold. She will have triple expansion engines, 16, 24, 40 by 28. Her boiler will be 12½ feet in diameter and 12 feet long, with a capacity of 160 pounds of steam.

About a thousand people gathered at Wheeler & Co.'s yard on Tuesday afternoon to witness the launch of the four masted schooner, John C. Fitzpatrick. At 3:30 the signal was given and she glided off the ways without any hitch. After she righted herself she drew less than six feet of water. Her bow is somewhat broad which gives her a bulky appearance, but adds to her carrying capacity. Her dimensions are as follows: Length of keel, 242 feet; over all, 246 feet; breadth, 37 feet; depth, 16 feet; gross tonnage, 1,270; net, 1207. J. P. R.

THE FREIGHT SITUATION.

This week there was another drop in the ore rates, Ashland being quoted at $1.10, Marquette 95c, (nominally), and Escanaba 65c. It will not stay at these figures, however, and a few days will probably see it better. Not much confidence is placed in the dispatch sent out from Duluth a few days since, stating that hereafter the only wheat shipments would be the supply of line boats, with partial cargoes, and better things are hoped for from Chicago now that the 1st of June has come. Coal freights are practically the same, both in figures and feeling, as last week. The vesselmen are still willing to take 45c. to the head of Lake Superior, with the idea that something better will be offered soon.

Capt. Frederick A. Mahan, engineer secretary of the Lighthouse Board, has returned to Washington after visiting Buffalo, Chicago and Detroit on business connected with the lighthouse service. At Detroit he consulted Colonel Ludlow relative to various matters in that district. His mission to Chicago was to confer with the managers of the Columbian Exposition in regard to the location of a tower which the Lighthouse Board propose to erect on the grounds.

A NICARAGUA CONTRACT.

F. W. Wheeler & Co., of Bay City, Mich., have closed a contract with the Nicaragua Canal Company for a large steel tug, which will be completed before navigation closes, and sent to Central America. She will be 106 feet long, 23 feet beam, and 10 feet deep, and will have triple expansion engines, 16, 24, 40 inches by 28 inch stroke. She will be used in the construction of the Nicaragua canal. F. W. Wheeler & Co. have already sent two large freight steamers, the Mackinaw and Keweenaw, to the coast and were the firm who bid on the proposals for constructing the U. S. naval practice vessel at a lower figure than their coast competitors.

Medium sized tonnage or such as can be taken through the St. Lawrence system of canals, may be constructed at lake ship yards with more dispatch and probably at better figures than in any other part of the United States.

There was launched from the Wheeler yard on Tuesday the large schooner John C. Fitzpatrick, consort for the schooner George T. Hope, and she will be ready for service in a few days.

ACTION TAKEN BY THE LAKE CARRIERS' ASSOCIATION.

At a meeting of the Finance Committee of the Lake Carriers' Association, held at Cleveland on Wednesday, action was taken as follows:

That the secretary be directed and requested to go to Washington at once and urge upon the senators the necessity of providing means for establishing certain lights and aids to navigation on the Great Lakes and connecting waters.

Favorable action was had in the Senate Committee on Commerce, and afterwards by the Senate itself, authorizing the establishment of a considerable number of lighthouses, lights and other aids to navigation on the Great Lakes. Favorable action was taken in the House Committee on the same, or a similar bill, including the items mentioned in this communication, and many others, but the House itself has not as yet acted, and it may be impossible for the general bill to go through at this session of Congress.

There are now maintained by this Association at an expense of $7,000 for this year, certain lights and ranges in the Detroit river and other places, some of which are maintained on Canadian soil, and no action of our Government has been asked looking toward the establishment of permanent lights to take their place. But as to those within the territory and jurisdiction of the United States, we urge upon the honorable Senators the pressing necessity of provision being made for taking under the Government control at once the lights named below, not merely for the sake of relieving this Association of expense, but for the even more important reason that under the Government control there will be a better system in the maintainance of lights and in the service in respect thereto. The lights have been established at private expense, because of the absolute necessity of having them as aids to the navigation of these important waterways, and a large part of the expense is in lighting the Limekiln Crossing in Detroit river, an artificial channel deepened by the Government at an expense of nearly one million dollars, but for the navigation of which, no Government lights have been established. The lights we refer to as being so urgently needed every night during the season of navigation, are those at Bar Point; at the Limekiln Crossing, at Ballard's Reef. the ranges at Fighting Island and Grassy Island, and on Grosse Isle, all the above in Detroit river, or at its entrance; and, besides, we ask that provision be made for changing the location of the upper St, Mary's river ranges in accordance with the urgent recommendation of the Lighthouse Board. The total expense of all the above aids to navigation will not exceed $70,000.

The lights now being maintained by this Association are established and kept as best it can be done in private hands, solely for the reason that very heavy losses to navigation have occurred so often as to justify, and, in fact. require such action.

In addition to the above we ask that proper action be had, so that the $60,000 heretofore appropriated for establishing a lighthouse on Eleven Foot Shoal in Green Bay be made available for the establishment of lightships on Eleven Foot Shoal and neighboring shoals, in accordance with the recommendations of the Lighthouse Board.

Very respectfully,

THE LAKE CARRIERS' ASSOCIATION.

By M. A. BRADLEY, President.

C. H. Keep, secretary, H. M. Hanna, Chairman of Finance Committee.

The Lake Carriers Association are daily receiving applications for the enrollment of tonnage on their books. At the meeting of the Finance committee held on Wednesday it was decided to close the tonnage books on June 18th, and no vessels will be admitted to the Association on the 1892 register after that date.

AMENDMENTS TO THE DANISH SEA LAW.

One of the most important acts passed during the last session of the Danish Rigsdag is known as the sea law. It accords as to all essential particulars with the Swedish law of 1891, and it is expected that the same law will be adopted by Norway. It is codification of earlier statutes and legal decisions, and in all cases where the Danish marine laws offered no positive regulations this law closely follows the general marine laws.

Of the provisions of this law, which contains 315 sections, may be mentioned :

Vessels shall be entitled to fly Danish colors only when at least two-thirds of the shares belong to persons who are natives of Denmark, or are in possession of certificates of naturalization. Such persons must not be citizens of any foreign country. They must be residents of Denmark, having resided here for at least five years, or, if the vessel belongs to a joint stock company, the governing board of this must be domiciled in Denmark, and be composed of shareholders of the same qualifications.

All Danish vessels of twenty register tons and above (men of war and some other Government vessels excepted) must be entered in the public registers. All transactions of sales, hypothecations, etc., must be entered on the folio of the vessel. From the general register in Copenhagen every information can be obtained as to evidence of title to all vessels bound to register.

When a vessel belongs to a company of owners, a majority of the shares can decide as to the officers of the company, also as regards the dissolution of the same.

The master is not held personally responsible for liabilites when he has acted on behalf of the owners of the ship or cargo. Whatever extra compensation the master shall receive rom freighters or others shall be credited to the shipowners.

If the master apprehends desertion, he is entitled to confine the party concerned on board or on shore, till the sailing of the vessel.

The master is responsible for the sea-worthiness of the vessel. Every single person of the crew may claim his discharge, if the master neglects taking measures for insuring the sea-worthiness of the ship. The majority of the crew may require a legal examination into the condition of the vessel. If the complaint is made without good reason, they are liable to be charged with the expenses of this examination.

In cases of collision the loss falls on the guilty party. If no information can be obtained as to the cause of the collision the loss must remain with the loser. If a master during a collision neglects to offer due assistance, or does not give the name and home of the vessel, he is held as guilty of the collision unless the contrary is proved.

If a bargain has been made, in case of need, with respect to salvage, the master of the owner of the ship or cargo, but not the insurer, shall be entitled to submit the question as to the amount of the salvage to the decision of the court, that has the power to state the compensation in cases where this considerably exceeds a fair estimate.

During the same session of the Rigsdag laws have been passed relative to the registration of vessels, the examination of mates and engineers, and as to the qualifications of ship-masters, mates and engineers.

LAUNCH OF THE STEEL STEAMER CODORUS.

There was successfully launched from the yards of the Union Dry Dock Co., at Buffalo, on Saturday at 3 p. m., the steel steamer Codorus, built to the order of the Erie and Western Transportation Co. (Anchor Line).

The launch was witnessed by a number of vessel owners and builders from other lake ports, and Superintendent Edward Gaskin consigned the steamer to the element in which her career will be spent, in a punctual and workmanlike manner.

It is expected that the ordinary speed of the Codorus will be about 13 miles an hour when carrying a full cargo of 3,000 tons on a draft of 15½ feet. The vessel's deck is perfectly straight from stem to stern, and she will carry no spars. In other respects she does not differ materially in general construction from the other modern package freight carriers of the lakes, having a water bottom, seven water tight bulkheads, steam steering gear, steam windlass and capstans, electric light plant and all modern facilities for handling ship and cargo.

The Codorus is the first to be launched of a fleet of three steamers constructed by three of the most prominent builders of high class tonnage on the lakes, the Union Company have put forth every effort to have the Codorus as strong, speedy and shapely as steel and good workmanship can make her. The new steamer's dimensions are as follows: Length over all, 290 feet; length of keel, 275 feet; beam, 40 feet; molded depth, 26 feet. Two steel boilers of the Scotch type, each 12 feet in diameter and 14 feet long, built by the Lake Erie Boiler Works will supply power at 160 lbs pressure, to a triple expansion engine of H. G. Trout's make, with cylinders of 20½, 33 and 54 inches in diameter, with 45-inch stroke. H. G. Trout also made the propeller wheel, which is 12½ feet in diameter with 17½ feet pitch.

FREIGHT transportation over the great lakes in 1890 saved over $175,000,000 in freight charges alone.

OBITUARY NOTICES.

D. B. LINSTEAD.

Friday afternoon, Mr. Linstead, the general western agent of the Central Vermont line of steamers, died at his home at Edgewater. The deceased has been suffering from poor health for the past six years, some months spent in California merely tending to weaken instead of benefit him.

Mr. Linstead was prominent in transportation circles and was born at Mount Vernon, Ohio, in 1846. After the war he studied medicine, but in 1868 he went to the mining regions of Lake Superior, going from there to Cleveland with the old Northern Transportation Company.

In 1876 he became general western agent of the Central Vermont Line. Being a prominent Mason, he was buried by that fraternity, under the auspices of Chevalier Bayard Commandery No. 52.

Among the line agents who have been bound together by many years of close association in all general questions affecting the Lake transportation and close competition for business, the feeling was that one of a little family had gone. The Line Agents' Association met in the arbitration room of the Board of Trade, Chicago, to take action on the death of Mr. Linstead. T. T. Morford, of the Union Line, was in the chair, and J. C. Evans, of the Anchor Line, was secretary. Brief speeches of eulogy were made, after which the following memorial was adopted :

"Death having removed D. B. Linstead, one of our members, the Chicago Lake Line Agents Association joins with the hosts of friends of Mr. Linstead in serious regret at his demise, and heartfelt sympathy with the bereaved family. Mr. Linstead was a whole-souled man of genial temperament. In our association with him for nearly two decades in the transportation business, we always found him upright and honorable in all his dealings. He was a brave man and a true friend. This association resolves to attend the funeral May 29, in a body, and masters of steamers in port, are to be instructed to have their colors flying at half-mast during the services. This memorial is to be sent to his family, signed by the members of the association."

JOHN HURLEY.

When this reaches our readers they will have read of the disaster on the Detroit river, in which, on the night of Saturday, May 28th, John Hurley, owner, and chief engineer Robinson, of the steamer Majestic, lost their lives.

It was late at night and Mr. Hurley had gone out on his tug, the Washburn, to have a personal interview with the captain of the steamer Majestic, bound up, presumably to give orders relative to a down freight. His errand had been accomplished, and the tug, bearing her crew and Engineer Robinson, and a deck hand named Halsted, from the Majestic, had let go their line and headed for their dock, foot of Griswold street. The night was dark, and neither the crew of the tug or the officers on the steamer City of Mackinac, which ran the Washburn down, seem to have been aware of the close proximity of the boats until the moment of impact. As there is no claim of any cross-whistles, nothing but the fact that the tug came apparently out of the darkness and upon the Mackinac direct'y in her course, and that at the rate of speed the checking or reversing of the Mackinac in time to avoid collision was an utter impossibility, and thus it seems that the casualty may be classed with the unavoidable accidents.

John Hurley was among the foremost of Detroit's self-made men, where, at the end of twenty years' struggle, and at an early age, about forty, he had accumulated a fortune by hard unremitting efforts. Those with whom he came in daily contact will long carry remembrances of his sterling business qualities, and with the wider circle of acquaintances made in a life time, (every day of which was a busy one with him), there are many who have the warmest regard for him.

Mr. Hurley leaves a widow and five children, all girls. In religion a Catholic: in politics a Democrat; in his home, where his loss is felt so sadly that we would but draw the curtain closer to shield the bereaved, he was a true loving husband and a kind loving father. In Detroit, where business interests must feel his loss, an honored citizen. Among the vessels that were owned by Mr. Hurley are the steamer Majestic, tugs O. Wilcox, Oneida, Dave and Mose, Washburn, and schooners Mystic Star, Monguagon, Groton, and C. A. King.

PROGRESS IN AERIAL NAVIGATION.

Has Germany solved the problem of aerial navigation? The accounts that came from that country recently regarding the successful management of balloons, their progress against the wind and complete control by the navigators, were received with considerable doubt by this country, and, we presume, by European nations also. But evidence is now coming in of such a circumstantial character, says an exchange, that it seems almost impossible to longer doubt what seems an established fact, that the German government possesses the secret of successful aerial navigation, and is utilizing it on the Russian frontier in studying the fortifications of the latter country. European papers publish accounts of these balloons and assert that they are held stationary or moved at the will of the occupants. Citizens of every civilized nation have experimented with air ships, and all have failed unless the assertion is true that German scientists have solved the problem. The utility of manageable balloons in time of war can hardly be estimated. They could be used in reconnoitering an enemy's position, the movements of armies, supply trains, or the inspection of fortifications, and, perhaps, the latter might be subjected to an aerial bombardment and destroyed by a single individual who would be perfectly safe while carrying on his warfare from the clouds. Dynamite shells might be dropped from immense heights on the decks of war ships and entire navies destoyed with impunity. Notwithstanding the assertion by European papers that the German Government possesses the invaluable secret of aerial navigation and is utilizing it for military purposes, we are still a little skeptical and will not be surprised to learn that the balloons have some connection with the earth that controls their movements.

LAUNCH OF THE STEEL LIGHT-HOUSE TENDER COLUMBINE.

There was launched from the yards of the Globe Iron Works Co, on Saturday at 3 p. m., the second light-house tender built by the company to the order of the Light-House Board, Washington, D. C.

This handsome little vessel is a sister boat to the Lilac, built by the same company, and now nearly fitted out ready for service on the Pacific Slope. They have seven water tight bulkheads and have bilge keels, extending 70 feet, along on the outside; steam steering gear, electric lights, steam windlass and capstans, hoisting engines, and every modern appliance to suit their special work.

The Columbine has a right-handed cast iron screw propeller, about 9 feet 4 inches in diameter and of suitable pitch, driven by an inverted-cylinder, surface-condensing, fore-and-aft compound engine; the cylinders are 22 and 41 inches in diameter, with a stroke of 30 inches. The steam is furnished by two cylindrical single-ended boilers, 10 feet 8 inches in diameter, and 10 feet 9 inches long, each fitted with corrugated furnaces and tested for 165 pounds steam. She will be rigged as a two-masted schooner with pole topmasts, gaffs and derrick booms.

On the trial trip, which is to be of twelve hours duration, the specifications call for 600 I. H. P. when the engine is making 110 revolutions per minute, with a coal consumption of 2¼ pounds per I. H. P. and steam at 100 pounds pressure per square inch.

When the auspicious moment arrived Mr. John Smith mounted the rostrum and with his usual good style calmly signalled the blow to be struck which severed the Columbine from the spot where she had grown into shapeliness, the hull glided steadily away towards "the drink," and the moment her keel touched the water, Miss Kate B. Hanna, under convoy of Mr. Luther Allen, secretary of the company, christened the handsome craft by breaking a bottle of Pomerey Sec over the stem in that graceful and composed manner only known or to be attained by the gentler sex, and the career of the Columbine dated from that moment.

A feature of the launch, specially arranged on account of the heavy bilge keels, was the tipping up of the several midship ways, so as to ease the vessel down in the water. The effect of this departure in side launches was to deposit the vessel in the exact spot where she became water borne, and it made one of the steadiest and most equal launches ever witnessed at this port.

The dimensions of the Columbine are 155 feet over all, 26 feet 6 inches beam and 15 feet 2 inches depth of hold from beam to keel plate, and she will be ready for service in a few weeks. She is to be stationed at Portland, Me.

LAUNCH OF THE A. E. SHORES JR.

Rieboldt, Wolter & Co., Sheboygan, Wis., launched on Thursday last the A. E. Shores, Jr., a steamer designed especially for the Lake Superior lumber trade. She is 185 feet in length over all, with 166 feet keel, 34½ feet beam, and 12 feet depth of hold, with an estimated capacity of 800,000 feet of lumber. The hull is diagonally strapped, and is also provided with unusually heavy steel cords running her entire length and through bolted to each frame. She has also a water bottom with a capacity of several hundred tons of water ballast, an entire new feature in wooden tonnage.

The boiler and engine also embrace experimental features of a most important character. The engine is a fore-and-aft compound on the triple expansion principle with the intermediate cylinder omitted. High steam must be carried, and it has to pass from a high pressure cylinder 16 inches in diameter to a 48 inch low pressure cylinder. It is claimed that the engines of this pattern are being operated in England with better results than can be obtained from triple expansion engines of similar size.

The boiler will be 10x12 feet with a shell of inch steel. It will contain 275 tubes, presenting a heating surface of 2,750 feet, and is calculated to easily maintain a working pressure of 150 pounds. In a Scotch type boiler of the same size the heating surface would not be over 1,600 feet, and the advantage in consumption of fuel ought, therefore, to be 50 per cent. The engine, with a 36-inch stroke, is intended to swing a wheel 9½ feet in diameter, at the rate of 120 revolutions per minute. The Shores will be ready for business about June 26.

LAKE CURRENT OBSERVERS.

Captain C. Mason, of the Lake Superior Transit Co. steamer China, in service between Buffalo and Duluth, has deposited a number of bottle papers for the weather bureau in certain squares on Lake Superior, to ascertain the set and drift of currents. All of the masters in the line and a number of other leading steamboat lines and prominent masters are also interested in the work of obtaining reliable data regarding the physical geography of these vast bodies of fresh water.

Miss Lena Schnell, Sand Beach Mich., picked up a bottle this week that was thrown overboard by Capt. Robt. Murray, of the steamer Vanderbilt, only a few days previous, and this is the first authentic drift taken in connection with the direction of the wind which has been recorded on the lakes

Maritime Law.

U. S. District Court, Southern District of New York.

PERSONAL INJURIES—BOATMAN INJURED BY TOWING LINE—NEGLIGENT HANDLING OF TOW—CONTRIBUTORY NEGLIGENCE.

In singling three barges out of a tow, the tug assigned to that duty first made fast to libelant's barge, and then ordered the other to cast loose before lines were attached to them. The tugs and libelant's barge then dropped back to pick them up. In the prevailing tide and wind this was an improper and dangerous mode of handling the tow. By order from the tug, libelant threw a line to the barges, and his foot getting caught in the coil of the rope which was rendering, his foot was cut off at the ankle. It appeared that the libelant was not giving his undivided attention to the lines. Held, that the tugs were answerable for the unjustifiable methods of handling the barges, but as the libelant was not wholly free from fault, he should not recover a full decree. The sum of $700 was therefore allowed him. BROWN, J.

District Court, D. Massachusetts, December 7, 1891.

MARINE INSURANCE—INSURABLE INTEREST—TOTAL LOSS.

Where it appeared that libelant had an insurable interest in a vessel by reason of advances exceeding the amount of the policy sued on, and that the vessel had sustained damage from perils of the sea, and could not be made seaworthy except at an expense exceeding her value when repaired, thus constituting a total loss within the meaning of the policy. Held, that libelant was entitled to recover against the insurance company the amount of the policy.

District Court, D., South Carolina, February 23, 1892.

FREIGHT—CARGO "INTAKEN"—AMOUNT—INTENT OF PARTIES

Where a charter-party provides for a certain rate of freight on "about 1,500 tons" of iron ore "intaken,"—the original word "delivered" in the charter-party, being stricken out, and the word "intaken" written in,—and the master, at the port of loading, being without opportunity of weighing, demanded 1,575 tons, which amount was promised him, and a bill of lading made out therefor, and assurance given the master that he had that amount, and the ship, after a safe voyage without incident, delivered only 1,500 tons, no question of short delivery being raised, but only the question whether freight should be paid on 1,575 tons, as on the amount delivered. Held, that the parties had agreed at the port of loading as to the number of tons on which freight should be paid, viz., 1,575 tons.

PROPOSALS,

United States Engineer Office, 34 West Congress street, Detroit, Mich., June 2, 1892. Sealed proposals in triplicate, for furnishing all plant, materials and labor, and excavating in St. Mary's Falls Canal, Michigan will be received at this office until two o'clock p. m., July 2, 1892, and then publicly opened. Preference will be given to plant and materials of domestic production or manufacture, conditions of quality and price (import duties included) being equal. Attention is invited to Acts of Congress, approved February 26, 1885 and February 23, 1887, Vol. 23, page 332, and Vol. 24, page 414, Statutes at Large. The Government reserves the right to reject any or all propo-als, or to waive any informalities in the bids received; also, to award the contract upon other considerations than the price. For further information apply at this office, or at the U. S. Engineer Office, Sault Ste. Marie, Mich. O. M. Poe, Colonel, Corps of Engineers, Bvt. Brig. Gen, U. S. A. 6-2-23.

United States Engineer Office, Room 90, 134 Van Buren street, Chicago, Ill., May 25, 1892. Sealed proposals in triplicate for constructing three miles or less of the Trunk of the Illinois and Mississippi Canal near the mouth of Rock River; For screening, sorting, and delivering sand and pebbles, and for excavating the lock pits and constructing the foundations for three locks, will be received at this office until 12 noon, central time, Saturday, June 25th, 1892, and then opened. Bidders are invited to be present. Blank forms of proposals and specifications will be furnished on application. General plans of the works can be seen, and other information can be had at the Office of Assistant Engineer, L. L. Wheeler, at Milan, Ill. The attention of bidders is invited to Acts of Congress approved February 26, 1885, and February 23, 1887, Vol. 23, page 332, and Vol. 24, page 414, Statutes at Large. Preference will be given to materials of domestic production conditions of quality and price (including duties) being equal. The United States reserves the reject any or all bids. W. L. Marshall Captain, Corps of Engineers. 6-2-23

NOTICE TO MARINERS.

Fairport Pierhead Light.

Notice is hereby given that the tower on the East Pier at the entrance to Fairport harbor, mouth of Grand River, Lake Erie, Ohio, has been moved 117 feet to the northward of its former position, and the light is now exhibited at a point 28 feet from the outer end of the East Pier.

By order of the Lighthouse Board, James A. Greer, Rear Admiral, U. S. Navy, Chairman. Office of the Lighthouse Board, Washington, D. C., May 26, 1892.

INCORPORATED 1794.

Insurance Company of North America.

CAPITAL, Paid up in Cash, - - $3,000,000.00
ASSETS, - - - - - - 9,273,220.00

CHARLES PLATT, President. WILLIAM A. PLATT, Vice-President.
EUGENE L. ELLISON, 2nd Vice-President. GREVILLE E FRYER, Sec'y & Treas.
JOHN H. ATWOOD, Assistant Secretary.

Lake Marine Department. GEORGE L. McCURDY, Manager, CHICAGO, ILLS.

ORGANIZED 1881.

Michigan Fire and Marine Insurance Co.,

CAPITAL, - - - - $ 400,000
ASSETS, - - - - - 900,000
LOSSES PAID, over - - - 1,500,000

D. WHITNEY, Jr., President. EUGENE HARBECK, Secretary.

This Company will transact a Hull and Cargo business on the Lakes during the season of 1892.

LOSSES PROMPTLY PAID. INSURE IN A STRONG HOME COMPANY. DETROIT, MICH.

MARINE AND INLAND INSURANCE.

ATLANTIC MUTUAL INSURANCE COMPANY,

(ORGANIZED 1842.) Office, 51 Wall Street, NEW YORK.

Insures against Marine and Inland Transportation Risks and will issue Policies making Loss Payable in England.

Assets over $10,000,000 for the Security of its Policies.

The profits of the Company revert to the assured, and are divided annually upon the premiums terminated during the year; thereby reducing the cost of insurance. For such dividends, certificates are issued bearing interest until ordered to be redeemed, in accordance with the charter.

J. D. JONES, Prest. W. H. H. MOORE, Vice-Prest. A. A. RAVEN, 2nd Vice-Prest. J. H. CHAPMAN, Secy.

CAPITAL $300,000.

The Marine Bank Company,

Incorporated in 1891 under State Law. CLEVELAND, OHIO.

Successors to E. B. HALE & CO., established in 1852.

DIRECTORS:

W. H. BARRISS, President. H. C. RANNEY, Vice-President. W. B. HALE, Cashier.
C. E. BURKE. THOS FITZPATRICK. THOS. H. WHITE. MARTYN BONNELL

Would be pleased to meet or correspond with any one whose present Banking relations are not entirely satisfactory, or who, for any reason, propose to open a new account.

We promise to make every effort to make our Bank a safe, agreeable and profitable place to do business.

Improved Bolt Helmet.

ESTABLISHED, 1844.

A. SCHRADER & SON.

Manufacturers of Submarine Armor AND Diving Apparatus.

32 ROSE ST., N. Y.

McKinnon Iron Works

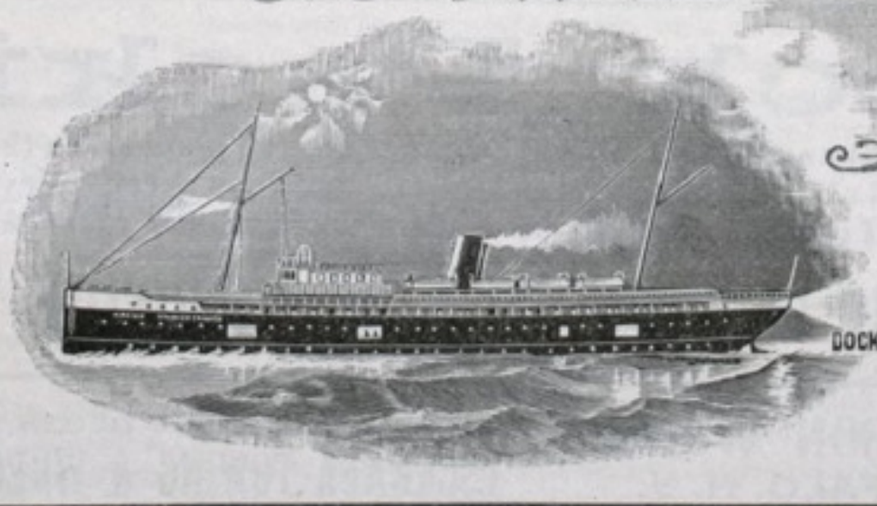
ASHTABULA HARBOR, O.

Machinists, Boilermakers, Shipsmiths and Steamfitters.

We carry a large and complete stock of Engineer's Supplies, Oils, Packings, Hose, Air Pump Valves, Brass Goods, and other Steam Fittings. You will find our prices as low as at any place on the lakes, and our goods the best we can buy.

W S. McKINNON, Proprietor.

E. S. Richardson Fueling Co.



COAL

DOCKS: FOOT OF NORTH MARKET ST. 18TH STREET BRIDGE. NORTH PIER. ILLINOIS CENTRAL SLIP'C"

Office Foot of North Market St.

CHICAGO.

PITTMANS & DEAN COMPANY,

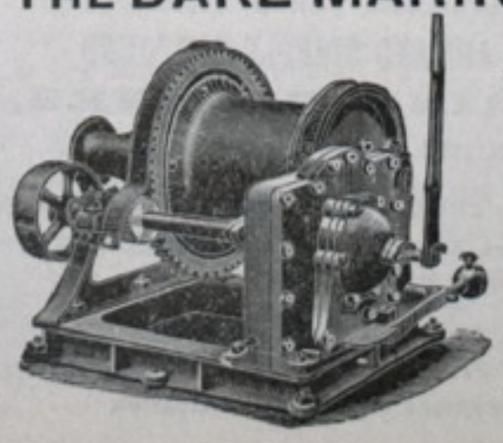
STEAMER COALING DOCK.

ERIE MANSFIELD A SPECIALTY.

DOCK FOOT OF RIOPELLE STREET,

NEXT TO UPPER DRY DOCK, DETROIT, MICH.

THE DAKE MARINE HOISTING ENGINE.



SIMPLE, DURABLE AND ECONOMICAL.

SATISFACTION GUARANTEED.

PERFECT CUT GEARS.

MANUFACTURED BY

The Dake Engine Mfg. Co.,

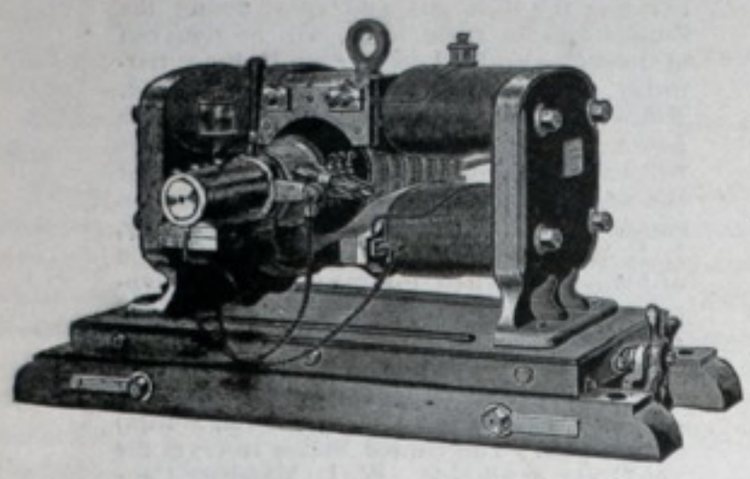
GRAND HAVEN, MICHIGAN.

Send for Catalogue before buying.

FRANK E. KIRBY, President. RUDOLPHUS FULLER, Superintendent. R. HUMFFREYS-ROBERTS, Secretary and Manager.

FONTAINE CROSSING CO.,

Corner Russell Street and Boulevard, DETROIT, MICH.



MANUFACTURE THE CELEBRATED

FULLER DYNAMOS AND MOTORS

The slowest speed and most perfectly Automatic Dynamo in the world, therefore

THE BEST FOR STEAMBOAT INSTALLATION.

NO VIBRATION.

SIGNAL WORK A SPECIALTY. VENTILATING FANS AND MOTORS.

Steamers already equipped with our Plants: E. C. POPE, MINNIE M., SOO CITY, SAPPHO.

Correspondence Solicited. **TELEPHONE 755.—4 Rings.**

LOUIS K. GILLSON, PATENTS.

87 METROPOLITAN BUILDING,
Cor. Randolph & La Salle Sts. CHICAGO, ILL.
Free-24-page pamphlet, "Pointers from the Patent Laws."

P. M. CHURCH & CO.,

SAULT STE. MARIE, MICH.

SHIP CHANDLERY, HARDWARE, PAINTS, OILS, AND ALL CLASSES OF

VESSEL SUPPLIES.

Coppersmith Shop in connection.

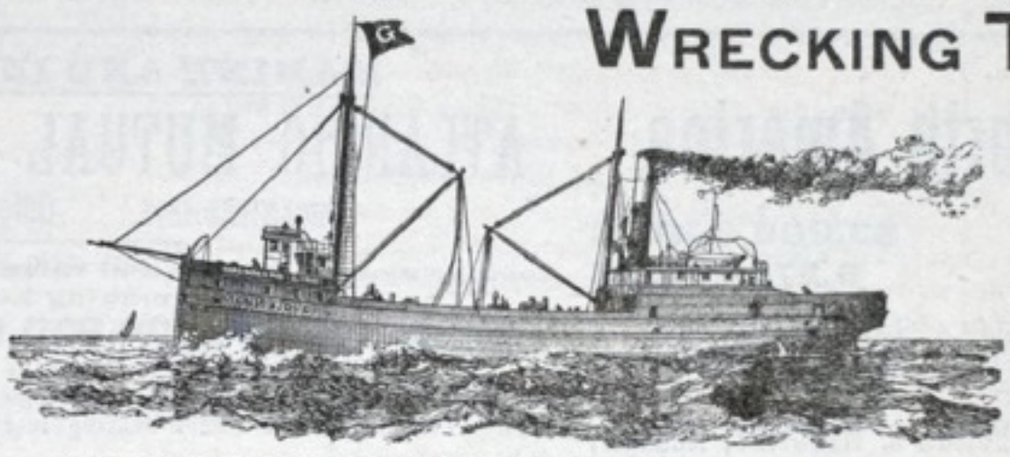
Corner Portage and Ashmun Sts.

TELEPHONES, - { OFFICE No. 7. RESIDENCE No. 4.

S. B. GRUMMOND,

OWNER OF FIRST-CLASS TUGS FOR **WRECKING, RAFT TOWING, Etc.**

TUGS: MANISTIQUE, CRUSADER, M. SWAIN, CHAMPION, JOHN OWEN, WM. A. MOORE, GLADIATOR.



WRECKING TUG MANISTIQUE,

CAPT. FRANK H. DANGER,

STATIONED AT MACKINAW CITY.

With great power and speed, light draft, and can do her own lightering and is in fact the only complete Wrecker on fresh waters carrying Complete Wrecking Outfit on board, including New Pumps, Improved Horizontal Straight Base Hydraulic Jacks, 2 Derricks, Steam Hoists, Buckets, Sub-Marine Divers, New 10-12-14 inch Hawsers, 1,200 feet long.

OFFICES OPEN DAY AND NIGHT.
Branch Offices & Warehouses at PORT HURON & CHEBOYGAN, MICH.
PLENTY OF WRECKING MATERIAL AT ALL STATIONS NAMED.

SATISFACTION GUARANTEED.
General Office & Warehouse,
FOOT OF FIRST ST., DETROIT.

LONG DISTANCE TELEPHONE 1644, BROOKLYN.

SOUTH BROOKLYN STEAM ENGINE WORKS.

VAN BRUNT AND SUMMIT STREETS, BROOKLYN, N. Y.
SUCCESSORS TO WM. A. LIGHTHALL.

LIGHTHALL SURFACE CONDENSERS.

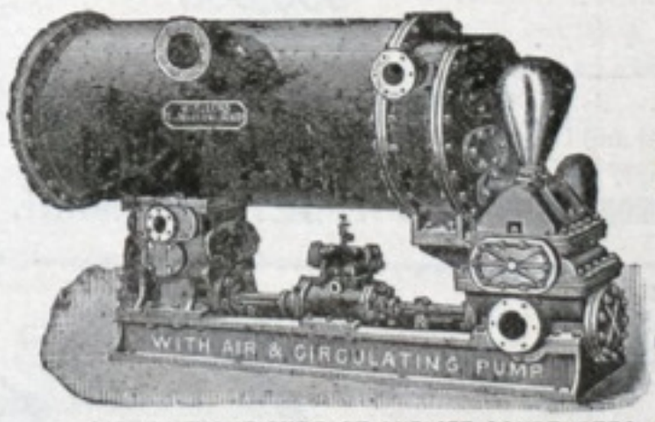
Lighthall Surface Condensers with Cobb's Improvements. Light Weight Brass Condensers a Specialty. Also Feed Water Heaters, Iron and Brass Tube Heads, Screw Glands, Paper, Wood and Fibre Packings, Etc.

Builders of Brass and Composition Surface Condensers for U. S. Cruisers MAINE, No. 11, Gunboats Nos. 5 and 6, CONCORD and BENNINGTON and HARBOR DEFENCE RAM.

ADDRESS ALL CORRESPONDENCE TO THE COMPANY.

WHEELER CONDENSER AND ENGINEERING CO.,

92 & 94 Liberty St., NEW YORK.



Proprietors and Manufacturers of

WHEELER'S IMPROVED

Patent SURFACE CONDENSERS

ALSO THE

Wheeler "Admiralty" Condenser,

WITH PATENT SCREW GLANDS,

The Wheeler-Lighthall Condenser

With Patent Waterproof Packing.

LIGHT WEIGHT SURFACE AND JET CONDENSERS, FOR STEAM YACHTS, ETC., A SPECIALTY

Garlock Packings.

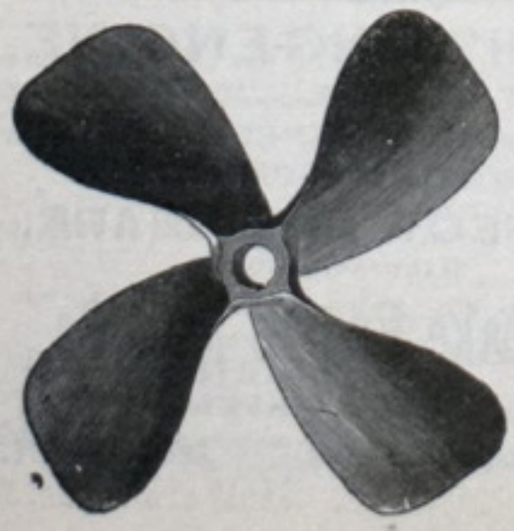
Our Elastic Ring, Sectional, Spiral and Special Water Packings are the pioneers in this line. For Steam, Water, Ammonia, High Speed Work and all places where packings are used they excel. Try our Special water Packing, fully guaranteed for water end of pumps. See that our trade mark is on each package. Correspondence solicited.

PALMYRA, N. Y.
ROME, GA.
OMAHA, NEB.
PORTLAND, OR., 170 2d st

The Garlock Packing Company.

NEW YORK, 194 Water St.
CHICAGO, 94 Franklin St,
PHILADELPHIA, 22-24 N. 4th St.
PITTSBURG, 54 Fifth Ave.

H. G. TROUT,



KING IRON WORKS,

BUFFALO, N. Y.

MANUFACTURER OF

TRIPLE EXPANSION, THREE CYLINDER, FORE AND AFT AND STEEPLE COMPOUND

MARINE ENGINES,

High and Low Pressure Engines.

SECTIONAL TUG & YACHT PROPELLER WHEELS.

Cowles Aluminum and Manganese Bronze Propeller Wheels.

These Wheels are noted for their extra speed and towing power, or a proportionate saving of coal.

PRICES QUOTED ON APPLICATION

I. H. OWEN, Prest., Chicago. F. H. VAN CLEVE, Sec'y, Escanaba. Capt. GEO. BARTLEY, Supt., Escanaba.

ESCANABA TOWING & WRECKING COMPANY, Escanaba, Mich.

Tugs, Lighters, Steam Pumps, Hawsers, Hydraulic Jacks & Diving Appliances always ready.

TUG MONARCH.—Engine Compound, Cylinder 16 & 30 in. diameter, 30 in. Stroke, Steam Pressure allowed, 125 lbs.
TUG DELTA.—Cylinder 20 by 22, Steam Pressure allowed, 105 lbs.
TUG OWEN.—Cylinder 20 by 20, Steam Pressure allowed, 104 lbs.

CENTRIFUGAL PUMPS, SEVEN AND FOURTEEN INCH SUCTION

MURRRAY & TREGURTHA,

WEST FIRST STREET, FOOT OF E STREET, SOUTH BOSTON, MASS.

—BUILDERS OF—

HIGH SPEED SINGLE, COMPOUND and TRIPLE EXPANSION MARINE ENGINES.

TREGURTHA SAFETY YACHT BOILER, the best Yacht Boiler in the market.

SHAFTS, STERN BEARINGS, SMALL STEAM PUMPS.

HIGH SPEED PROPELLER WHEELS A SPECIALTY.